

IN THE CLAIMS

Please cancel claims 1 through 24 without prejudice or disclaimer, and add claims 25 through 31, as follows:

Claims 1 through 24. (Canceled)

1           25. (New) A method of generating an alarm on an occurrence of a cell secession of  
2           a mobile station located within a common cell area of a public and private radio mobile  
3           communication system, the method comprising:

4           receiving power-related information transmitted from the mobile station and detecting  
AI// information about the frame quality from the received information;

6           comparing the frame quality information with a power control parameter value of the  
7           system;

8           determining whether the mobile station is registered in the private wireless  
9           communication service system upon a determination that a power level of the mobile station  
10          is less than a predetermined reference power level;

11          transmitting information for generating an alarm on an occurrence of a cell secession  
12          to the corresponding mobile station upon a determination that the mobile station is registered  
13          in the private radio mobile communication system; and

14           transmitting no cell secession alarm information to the corresponding mobile station  
15   upon a determination that the mobile station is not registered in the private radio mobile  
16   communication system.

1           26. (New) The method as claimed in claim 25, wherein transmitting the cell  
2   secession alarm information to the mobile station comprises transmitting a predetermined  
3   tone control message over a forward traffic channel.

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1           27. (New) The method as claimed in claim 25, the power-related information  
2   including at least one of a power measurement report message as to the received power level  
3   from the mobile station and an erasure indicator bit as to an error detected field.

1           28. (New) A method comprising:  
2   receiving in a base station of a public and private radio mobile communication system  
3   a power control parameter of a mobile station located within a common cell area of the  
4   public and private radio mobile communication system from a base station controller of the  
5   mobile communication system;  
6   receiving power-related information in the base station, the power-related information  
7   being related to a received power level of the base station at the mobile station and being  
8   generated and transmitted from the mobile station to the base station;

9 the base station detecting information as to a frame quality by determining a forward  
10 frame error rate from the received power-related information;

11 comparing the determined forward frame error rate with a value corresponding to the  
12 power control parameter received from the corresponding base station controller to provide  
13 a determined power level of the mobile station;

14 determining when the determined power level of the mobile station decreases below  
15 a predetermined reference power level indicating that the mobile station has seceded from  
A 16 a selected cell of the mobile communication system;

17 determining whether the mobile station is registered in the private radio mobile  
18 communication system when the determined power level of the mobile station is less than  
19 the predetermined reference power level;

20 transmitting information for generating an alarm on an occurrence of a cell secession  
21 to the corresponding mobile station upon a determination that the mobile station is registered  
22 in the private radio mobile communication system; and

23 transmitting no cell secession alarm information to the corresponding mobile station  
24 upon a determination that the mobile station is not registered in the private radio mobile  
25 communication system.

1 29. (New) The method as claimed in claim 28, the power-related information  
2 including at least one of a power measurement report message as to the received power level  
3 from the mobile station and an erasure indicator bit as to an error detected field.

1. 30. (New) An apparatus comprising:

2 a base station of the mobile communication system adapted to receive power-related  
3 information transmitted from a mobile station located within a common cell area of a public  
4 and private radio mobile communication system, the power-related information being  
5 related to a received power level of the base station at the mobile station and being generated  
6 and transmitted from the mobile station to the base station;

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7 an analyzer adapted to analyze the received power-related information to determine  
8 when a power level of the mobile station decreases below a predetermined reference power  
9 level indicating that the mobile station has seceded from a selected cell of the mobile  
10 communication system;

11 the analyzer also adapted to determine whether the mobile station is registered in the  
12 private radio mobile communication system upon a determination that a power level of the  
13 mobile station is less than a predetermined reference power level;

14 a transmitter adapted to transmit cell secession alarm information for generating an  
15 alarm on an occurrence of a cell secession to the corresponding mobile station upon a  
16 determination that the mobile station is registered in the private radio mobile communication  
17 system; and

18 the transmitter adapted to transmit no cell secession alarm information to the  
19 corresponding mobile station upon a determination that the mobile station is not registered  
20 in the private radio mobile communication system.

1. 31. (New) The apparatus as claimed in claim 30, wherein the transmitter is adapted  
2. to transmit a predetermined tone control message over a forward traffic channel of the  
3. mobile communication system indicating that the mobile station has seceded from the  
4. selected cell of the mobile communication system
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